1 VIDEO RECORDING SYSTEM UTILIZING STORAGE REDUNDANCY TO
2 TRANSFER NON-TIME-CRITICAL, ERROR-INTOLERANT DATA
3 SEGMENTS WHILE TRANSFERRING TIME-CRITICAL, ERROR-
4 TOLERANT STREAMING DATA SEGMENTS AT A REQUIRED DATA
5 TRANSFER RATE

6 Abstract of the Disclosure

7 The present invention may be regarded as a video recording system and method

8 of transferring a non-time-critical, error-intolerant data segment stored on a disk drive,

9 which is responsive to a set of data transfer commands generated by a host processor

10 and which is operating in a mode optimized for transferring time-critical, error-tolerant

11 streaming data segments stored or to be stored on the disk drive. The method includes

12 sending a sequence of data transfer commands generated by the host processor to the

13 disk drive to transfer a respective sequence of time-critical, error-tolerant streaming data

14 segments at a required data transfer rate. The method further includes selectively

15 interposing a first data transfer command into the sequence of data transfer commands,

16 the first data transfer command initiating a first transfer of the non-time-critical, error-

17 intolerant data segment from a first storage location. The method further includes

18 transmitting a data transfer error signal generated by the disk drive to the host processor,

19 the data transfer error signal having a state that indicates whether any data transfer

20 errors have occurred with respect to the first transfer of the non-time-critical, error-

21 intolerant data segment. The method further includes selectively interposing a second

22 data transfer command into the sequence of data transfer commands, the second data

23 transfer command initiating a second transfer of the non-time-critical, error-intolerant

24 data segment from a second storage location, thereby utilizing storage redundancy to

25 achieve an accuracy required for the non-time-critical, error-intolerant data segment

26 while maintaining the required data transfer rate of the sequence of time-critical, error-

27 tolerant data segments.